

# **Final Report for the California Clean Energy Workforce Training Program**

Prime Contractor Name: Employment Development Department

Contract Agreement Number: 180-09-001

Contract Term: August 26, 2009 thru March 31, 2012

Project Manager: Cynthia Hobart

Date Report Submitted: April 13, 2012



ARRA SEP contracts have not been granted confidentiality status for any contract deliverables, therefore, the Final Report is a public document and must be completed before the contract termination date of the contract. The contractor should use the outline below to complete the report. Each contractor should receive approval from their Commission Contract Manager to ensure the Final Report meets the needs of each individual contract.

Final meetings between the contractor and the Energy Commission will be at the discretion of each Commission Contract Manager.

**(1) EXECUTIVE SUMMARY: Provide a brief description of the following:**

- a. Program background, including your approach to the project**
- b. How project was organized**
- c. The organizational structure under the contract, including a description of the prime and sub-contractors.**

## **Executive Summary**

The Clean Energy Workforce Training Program (CEWTP) aligns strategies and resources of the Energy Commission, the Employment Development Department (EDD) and the California Workforce Investment Board (CWIB) creating the largest state-sponsored “green” workforce development program in the nation with approximately \$25.2 million in funding. As of February 29, 2012, the 28 grantee agencies have expended 99 percent of the funds awarded. Out of all the program participants:

- 98 percent were enrolled in training
- 89 percent have completed training
- 45 percent were placed in unsubsidized employment

The projects have cultivated effective partnerships with education and industry and have issued over 3,552 certificates that can be used for various green occupations.

## **Background**

The EDD Workforce Services Branch administers California’s employment services programs, which prepare adults, youth, and laid-off workers for participation in the workforce. These services connect hiring employers with more than one million qualified workers annually. The Branch also administers the Workforce Investment Act (WIA), which includes statewide workforce preparation programs and initiatives that focus on preparing adults and youth for the labor force and building the State’s economy. California distributes more than \$400 million annually in federal funds statewide to provide training series for adults, dislocated workers, and youth.

In the spring of 2009, the Energy Commission, the EDD, and the CWIB entered into a collaborative effort to combine American Recovery and Reinvestment Act funding from the State Energy Program and the Workforce Investment Act Governor’s Discretionary 15 Percent funds to launch the CEWTP. Coupled with a dollar-for-dollar match leveraged from public-private partnerships, the goal of the initiative was to promote the use of industry sector strategies as the framework for addressing the need for skilled workers in the industries related to energy efficiency, water efficiency, and renewable energy (distributed generation and utility-scale).

The Energy Commission utilized the expertise and delivery mechanisms already available through the EDD rather than re-create a stand-alone workforce initiative. Through interagency agreements, the total funding was divided between the Energy Commission (\$15.5 million) and the EDD (\$9.7 million).

The EDD administered a competitive Solicitation for Proposal, which resulted in the award of grants to 28 Community College Districts (or Community Colleges) and Local Workforce Investment Boards (LWIB) in October 2009. The Labor and Workforce Development Agency, the CWIB and the Energy Commission jointly made the funding decisions for the awards. Using the existing workforce development system, the EDD managed the grants, provided technical assistance to grantees and followed up with progress reports to the Energy Commission.

The Energy Commission and the EDD facilitated monthly webinars or face-to-face meetings where grantees shared information and best practices. This interchange has been very effective in keeping the momentum of the projects and focus on the primary goals of the program.

Toward the end of the grant period, the Energy Commission redirected unspent ARRA funds in the amount of \$1,018,574 million to four CEWTP projects that were out performing in their areas to implement a new set of projects, the On-the-Job Training (OJT) programs.

### Participant Services and Demographics

The CEWTP projects provide three levels of WIA services to participants:

1. Core services: outreach, job search and placement assistance, and labor market information;
2. Intensive services: comprehensive assessments, development of individual employment plans and counseling, and career planning
3. Training services: basic skills or occupational training linked to job opportunities in their communities.

"Supportive" services such as transportation, child and dependent care, housing and needs-related payments are provided under certain circumstances to allow participation in activities authorized under the program.

As of February 29, 2012, CEWTP served a total of 4,940 individuals.

- Attachment A shows a breakdown of participant performance outcomes, demographics and services received in each category.
- Attachment B shows the list of certificates issued to participants for both categories and OJT.

Attachment C shows the organizational structure for the CEWTP. Under WIA, the Governor designates local workforce investment areas (LWIA) for the development and maintenance of local One-Stop Career Center systems. Each LWIA has an administrative entity and a local workforce investment board (LWIB), analogous to the state WIA structure. LWIBs provide policy guidance and select entities to operate the local One-Stop sites, which deliver training, employment, and related services to their communities. The California Community Colleges is the largest higher education

system in the nation. It is comprised of 72 districts, 112 colleges and enrolls more than 2.9 million students. Community colleges provide basic skills education, workforce training and courses that prepare students for transfer to four-year universities. The colleges also offer opportunities for personal enrichment and lifelong learning.

- (2) **GOALS:** Provide a “high level” comparison of *Original Goals and Objectives Established in your contract to Actual Accomplishments*, including brief reasons why goals were not met (barriers), if applicable.

Initially, the CEWTP grantees had to opt to focus their programs on one of the two distinct funding categories:

### Category 1 - Green Building or Clean Energy Retraining

Partnerships provided training for unemployed or underemployed workers with a focus on those with construction experience to build upon existing construction skills and develop new skills for employment in the green building or clean energy sectors. Training focuses on a solid foundation in green building, energy and water efficiency and distributed renewable energy practices/technologies or utility-scale renewable energy generation, transmission and distribution practices/technologies.

- For the Green Building Partnerships, the program included training on green building principles, building science fundamentals and State energy code licensure laws for either the residential or commercial construction sector.
- For the Clean Energy Retraining Partnerships, the program included training on principles and construction skills on installation of utility-scale renewable energy fields including generation, transmission or distribution technologies.

Projects had to focus on either Green Building or Clean Energy (specifically utility scale) industry sectors.

### Category 2 - Green Building or Clean Energy Pre-Apprenticeship Training

These regional industry-focused sector partnerships provided pre-apprenticeship training for new workforce entrants, unemployed or underemployed workers with little or no experience with construction industry, energy and water efficiency, renewable energy and integrated “soft” job skills training as well as job placement services to prepare individuals for work in the building retrofit or utility-scale renewable energy field. Pre-apprenticeship training offered basic construction practices/technologies with a solid grounding in green building, energy and water efficiency, and the installation of utility-scale renewable energy fields including generation, transmission, or distribution.

Projects had to focus on either Green Building or Clean Energy (specifically, utility-scale) industry sectors.

### On-The-Job Programs

The EDD augmented existing contracts through the CEWTP to continue the efforts and implement the OJT projects in “green industries” through February 28, 2012. The grantees that received these additional funds were:

- Northern Rural Training and Employment Consortium (NoRTEC)
- Peralta Community College District
- Sacramento Employment and Training Agency (SETA)
- City of Richmond

With needs for qualified skilled workers in this emerging industry cluster, OJT programs allowed CEWTP graduates to increase their job skills and add practical work experience that would prepare them for career advancement, higher wages, and secure long-term employment.

### Performance Goals and Actual

The CEWTP projects served a total of 4,940 individuals from October 1, 2009 through February 29, 2012. Of the 4,824 who were enrolled in training, 89 percent participants completed training. Of those who completed training, 45 percent have been placed in unsubsidized employment. The table below reflects the overall performance goals and outcome data for both categories and OJT. Unless otherwise noted, the outcome data was extracted from the grantees "WIA Closeout-End of Project Report".

Performance Goal Description	Goal	Actual	Difference
Placement in Education or Training	4733	4824	<b>+91</b>
Completed Training	3965	4274	<b>+309</b>
Attained Recognized Certificate/Degree	3200	3552	<b>+352</b>
Placement in Unsubsidized Employment	3377	1936	<b>-1,441</b>
Retained Employment (6 months)	2561	584	<b>-2,067</b>

Overall, of the five performance goals established, three goals were exceeded. However as with the rest of the United States, it has been especially challenging for California's workforce during the life of the projects. Some of the grantees have encountered difficulties in placing participants who have completed the program in paid positions, and some of the obstacles reported were:

- Increased unemployment rate in the region (i.e., San Diego County's unemployment rate went from 5.1% in 2008 to 10.2% in 2011). At the state level, California's unemployment rate was 12% in comparison to the national of 9.1% for July 2011.

- Lack of legislation expected to support the green economy resulted in no new job development as predicted (companies were reluctant to expand and homeowners had no incentive to make their homes more energy efficient).
- Major solar projects are delaying the hiring of employees or did not begin as early as originally proposed due to changes in legislation and the economic downturn – some participants had to accept non-green jobs or return to school.
- Federal programs like HomeStar and PACE never kicked off crushing an anticipated job creation.
- Some participants are still receiving services which are subsidized by local matching funds.

Additionally, due to time period covered by this final report, the number of participants that retained employment (6 months) data is not available for those projects beyond June 30, 2011.

- (3) **ACCOMPLISHMENTS: *Actual Accomplishments under the Original Goals*** – provide a narrative of what was accomplished under the original goals, including but not limited to the following:
- a. Describe activities undertaken
  - b. Describe any regional and/or county rebate or incentive programs
  - c. Describe any finance programs
  - d. Describe key program outcomes
  - e. Provide significant quantitative results, including but not limited to:
    - i. Number of retrofits completed
    - ii. Number and amount of regional and/or county incentives issued
    - iii. Average retrofit project cost to the property owner
    - iv. Average energy savings
    - v. Number of workers trained
    - vi. Number of jobs created (separate full-time and part-time)
    - vii. Number of audits/assessments completed (separate test-in and test-out)
    - viii. Number of loans originated, including average loan amount

## Category 1

### Contra Costa Community College District

Diablo Valley College served 92 clients in four cohorts offered during the term of the grant far exceeding the target enrollment goal of 60. Seventy-nine participants graduated with at least one certificate based on the target number of 43, with 62 receiving multiple certificates. As of June 30, 2011, 42 participants were placed in unsubsidized employment, falling only 2 short of the goal of 44.

Contra Costa College staff conducted outreach to the unemployed, underemployed and under-skilled as well as union building trade workers who do not typically participate in grant funded training. About 10% of the enrolled students were relatively self-sufficient and had some prior experience in the construction industry. The remaining 90% were provided intensive services to keep them engaged and finish the program.

Los Medanos College was able to build on its foundation of an established heating, ventilation, air conditioning and refrigeration (ACREF), and major appliance technology program by updating existing curricula to meet the evolving needs of the industry, and incorporating green building science content, processes, and materials where feasible. In addition, a new curriculum was developed to address industry needs. During the CEWTP grant, the HVAC program offered new, short-term, accelerated courses to displaced construction workers. The new courses were Green



Building Technology I and II and Green Mechanical Systems I and II. Each of these classes required 36 to 54 hours of classroom instruction, and outside projects and homework. Students who completed all four courses had 180 hours of college level instruction. These accelerated, intensive courses prepared participants to take nationally recognized certification exams to become ready for employment.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	180	231
Completed Training	145	199
Attained Recognized Certificate/Degree	127	188
Placement in Unsubsidized Employment	132	66
• Training Related Job Placement	Not Negotiated	7***
Retained Employment (6 months)	107	Not Reported

\*\*\* Data Source: Employment Development Department's Job Training Automation System

### Grossmont-Cuyamaca Community College District

This project offered Solar PV Installer, BPI, OSHA 510, OSHA 3095, and Title 24 trainings to each of the participants. In addition, students were able to work at their own pace to improve their reading, writing, language, and math skills at the Work Readiness Learning Lab.

The project also offered a series of entrepreneurial trainings for participants interested in starting or running their own business. The curricula included: introduction, overview, business planning and entrepreneurship; market research fundamentals; bookkeeping and budgets; financial statements; administrative and operational fundamentals; product marketing and promotion; advanced marketing strategies; and QuickBooks bookkeeping system.

For people who were job searching, there were helpful workshops available on the building auditor industry; the future of the solar installation industry; Microsoft Suite; resume writing; job search techniques; thriving in uncertain times; using outlook and email; knowing and packaging yourself; interviewing strategies; improving presentation and sales skills; prospecting the hidden job market; leveraging social media; and blueprint reading and construction terms.

Project participants and business partners benefited from the Green Business Symposium: Growing Clean, Growing Green, Growing Jobs. Approximately 225 people attended this one day event and heard presentations from industry leaders on

topics such as: current labor market research, trends in the industry, and securing employment in the current economy and with current legislation.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	240	251
Completed Training	192	223
Attained Recognized Certificate/Degree	168	532*
Placement in Unsubsidized Employment	123	25
• Training Related Job Placement	123	13***
Retained Employment (6 months)	100	Not Reported**

\* The number reported, 532, is number of certificates issued. Although 223 individuals completed training some students received more than one certificate per training. For example, students who completed the Solar PV class received 2 OSHA certificates.

\*\* Follow-up services information was provided to students. Six month retention data was not obtained as staff were not able to get information from students or employers.

\*\*\* Data Source: Employment Development Department's Job Training Automation System

### Humboldt County

Humboldt County is a rural place and each partner played a vital role in the success of the program. This project's achievements include:

- Transitioning workforce base of construction industry into technology and clean energy based; and
- Despite a lack of market demand and the County was still in a deep recession, 40 participants were in employed in industry related jobs immediately after exit.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	100	94
Completed Training	80	90
Attained Recognized Certificate/Degree	70	90
Placement in Unsubsidized Employment	73	40
• Training Related Job	60	25

Placement		
Retained Employment (6 months)	59	Not Reported

### Kern Community College District

This grantee developed a robust training program valued by the industry and attained a 98% completion rate.

#### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	260	232
Completed Training	234	228
Attained Recognized Certificate/Degree	234	228
Placement in Unsubsidized Employment	217	32
• Training Related Job Placement	183	Not Reported
Retained Employment (6 months)	206	28

### Long Beach Community College District

Targeted outreach to industry organization's membership base has proven to be a successful strategy to recruit candidates for this project. Through an orientation session or road show, interested individuals learned about program eligibility, suitability and training offered.

Established as an additional recruitment step, program suitability and assessment, has been one of the project's greatest achievements. Participants were assessed on basic skills to determine their needs.

The project offered participants job readiness workshops and other services to successfully attain and retain employment. Program staff compiled and distributed a list of green job website postings on a weekly basis, disseminated job leads on a continual basis, and coordinated job placement referral processes by working closely with businesses in the industry.

By creating a job search environment conducive to competition among companies recruiting program graduates, the subgrantee and the Local WIB intended to become

a hub for clean energy trainings where local businesses would continually look for graduates in order to reach their company sustainability goals.

The project's retraining program was specifically designed for current and displaced workers with sufficient experience in the construction trades or related industries. Career training and certification tracks offered included:

- Certified Green Building Professional
- LEED Green Associate Architect/Designer
- Building or Home Energy Rater
- Building Performance Analyst
- Building Information Modeling Analyst

Participants interested in starting a small business also had access to the Long Beach Community College's Small Business Development Center (SBDC) for various services and workshops. Entrepreneurial training was offered to provide guidance and assistance to start a business.

Objectives and outcomes achieved from the Long Beach City College Clean Energy Workforce Training Program can be categorized into qualitative and quantitative outcomes. The qualitative outcomes achieved are listed as follow:

- Targeted the energy/water efficiency and sustainability industry and provided skills development to unemployed and underemployed workers based on labor market projections and the near term workforce needs.
- Aligned educational, economic, and workforce development planning spearheaded by educational institutions toward job- placement of newly trained workers into government agencies and private sector companies.
- Introduced systematic change that will support inter-agency communications and data gathering systems, which will achieve ongoing regional benefits for industries, workers, and communities.
- Created or expanded collaboration with Local Workforce Investment Boards (LWIBs), public/private employers, community and business development organizations, labor organizations and other key stakeholders.
- Analyzed targeted industry dynamics and the specific workforce needs of the industry's employers within the region and use this data-driven approach to align and leverage resources, identify and provide sector- related training, and provide supportive services that promote skill attainment and career pathways for workers.

## Key Program Outcomes

	Goal	Actual
Placement in Education or Training	125	129
Completed Training	100	116
Attained Recognized Certificate/Degree	88	93
Placement in Unsubsidized Employment	92	65
Training Related Job Placement	91	18
Retained Employment (6 months)	102	Not Reported

Notable participant success stories include:

- Peter, who has gone on to be a BPI instructor at neighboring community colleges.
- Eight BPI contractors that are Energy Upgrade California in LA County approved contractors.
- Lynette, who has gone to work for the LA Conservation Corps as an administrative assistant.
- Alvin is the energy upgrade coordinator for a large Long Beach firm, Energy Services and Technologies.
- Aryn, owner, CSI Co. has gone onto speak in multiple counties and engage in partnerships with multiple non-profits and developers to advance sustainability in home performance.
- Sara works with LE Consultants, one of the most respected LEED and sustainability consulting firms in commercial real estate.
- Justina is now a mechanical engineer for Gotama Building Engineers, a local MEP firm that is most notably working on the University of Southern California football training facility.
- Doug has gone to incorporate building performance with art and now works with Wyland on murals for community development projects.
- Victor was hired by LBCC to do job development for fellow CEWTP participants.

### Los Angeles County

Los Angeles County's CEWTP project celebrated many significant achievements. Most notably, the collaborative relationship that was forged between the Los Angeles Community College District (LACCD) and the Los Angeles County Workforce Investment Board (LACWIB) proved to be a grand unprecedented opportunity for our LWIA and for the overall Los Angeles region. The partnership resulted in a strategic

move to support the regional “greening” efforts, and the advancement of workforce and economic development in this budding sector. The project was able to expand and mobilize training activities across any of LACCD’s nine college campuses. This notable flexibility maximized the project to more than double the targeted number of participants. To maximize their leveraged resources and meet the matching requirement; the project team decided to use non-WIA students for the match.

The second achievement was the merging of the CEWTP with the Energy Upgrade California (EUC) project. In March 2011, Los Angeles County was the first county to launch the EUC for Southern California. This program provides homeowners with information and financial assistance to make homes more energy efficient. This project was recognized as the State’s model pilot by the California Energy Commission. In addition, LACCD provided business and students with technical assistance on how to expand or develop a business through its Small Business Dream Center of Los Angeles.

The most valuable best practice gained from this experience is how LA County learned to maximize time navigating through two inflexible systems that truly dictated the implementation phase of the project. Had it not been for the joint commitment to this project, it may not have happened otherwise. They are very pleased with the relationship that was established and will continue to work closely with LACCD to develop other projects like this one that will help strengthen the economic development of the region.

### **Key Program Outcomes**

	<b>Goal</b>	<b>Actual</b>
Placement in Education or Training	150	150
Completed Training	128	150
Attained Recognized Certificate/Degree	113	71
Placement in Unsubsidized Employment	113	72
Training Related Job Placement	113	9
Retained Employment (6 months)	95	51

## North Orange County Community College District (NOCCD)

The Green Building Training Program delivered a comprehensive training that included the following courses:

- Green Building Professional
- Title 24 CA Energy Efficiency Standards
- Building Performance Contractor
- Building Analyst Professional
- Envelope Professional
- Home Energy Rater
- Water/Energy Auditor
- Accredited Green Plumber

The project targeted populations from the counties of Los Angeles, Orange and portions of Riverside and San Bernardino that have been hit hard by the economic recession. Building Analyst Professional Certification was also offered to all participants. The BPI certification class was conducted in conjunction with Clean Edison.

At the end of each session, NOCCD included additional trainings such as: 10 hour OSHA Industry Standards and HAZWOPER–Hazardous Waste Operations and Emergency Response Training. These classes were offered to all of our students at no cost to them. This was in recognition that the construction industry had not recovered as quickly as we had hoped. While the graduates were expected to use their new Green Building skills in the long term, in the short term many students were able to find jobs in general industry -- specifically in handling hazardous waste. Throughout the program, strong partnerships were maintained with different agencies which allowed sharing resources and ideas. Due to these strong partnerships and flexibility in training, a large majority of our students returned to the workforce.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	150	127
Completed Training	140	108
Attained Recognized Certificate/Degree	110	108
Placement in Unsubsidized Employment	110	63
Training Related Job Placement	100	63
Retained Employment (6 months)	121	63

## NoRTEC

By over-enrolling participants into training, this grantee was able to exceed the goals for placement in education or training, completed training and certificate attainment. Through this project, NoRTEC formed partnerships with various service and training providers, and employers. It was the coordinated efforts of each of these entities or groups that resulted in the achievement of most grant objectives.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	117	135
Completed Training	95	101
Attained Recognized Certificate/Degree	82	101
Placement in Unsubsidized Employment	86	50
Training Related Job Placement	82	24
Retained Employment (6 months)	71	Not Reported

## Sacramento Employment Training Agency

The overarching goal of the Sacramento Green Building Retraining Initiative was to enhance the skill-set of the talent pool and increase access to green building construction employment opportunities, thereby increasing the number of knowledgeable, skilled and stable employees in the green building and energy efficiency construction workforce.

Through new partnerships with green employers and training providers, this grantee was able to increase the number and diversity of workers entering green building retraining and employment; retrain and place trainees and construction workers into green building and energy efficiency construction jobs that are stable or growing; and increase the retention rate of workers entering construction apprenticeship and green construction and energy efficiency employment.



## Key Program Outcomes

	Goal	Actual
Placement in Education or Training	200	271
Completed Training	160	168
Attained Recognized Certificate/Degree	142	145
Placement in Unsubsidized Employment	145	159
Training Related Job Placement	100	106
Retained Employment (6 months)	120	Not Reported

### Sonoma County

The CEWTP grant was awarded to the North Bay Employment Connection (NBEC), a consortium of four local Workforce Investment Boards (WIBs) representing the northern California counties of Marin, Napa, Solano, and Sonoma counties.

Through this project, the grantee was able to attain the following accomplishments:

- Established tool lending libraries on Marin and Sonoma allowing CEWTP and other qualified building professionals to borrow building performance measurement equipment free of charge to practice for HERS or BPI testing and/or to work on short term energy efficiency home performance projects.
- Established an online database for Sonoma county PACE program's projects (SCEIP-Sonoma County Energy Independence Program) to capture data elements necessary to project green workforce needs. Data elements include project description, jobs completed, job descriptions/titles of those completing the work and types of certifications required to complete the jobs.
- Established Green training classes throughout the NBEC region (Marin, Napa, Solano, and Sonoma County) by adding Green Training Providers to the California Eligible Training Provide List and by entering into individual contracts.
- Each NBEC region created a Green Employer Advisory Council to allow for discussion of workforce development and training possibilities for CEWTP participants to create pathways into the green building industry and continue success and sustainability of green workforce development in the regions.
- Concerted outreach, marketing and recruitment efforts to community leaders, employers, labor, and One-Stops for CEWTP participant recruitment and awareness of the green building industry.

- Sonoma County's partnership with the IBEW Local 551 enabled clients who excelled in the Solar Design and Installation class given by the IBEW to be invited to join the union as a Solar Installer. Each of the 12 participants that chose to do so now have long term jobs as Solar Installers and will be advancing in the IBEW ranks.
- Sonoma County and the California Building Performance Contractors Association (CBPCA) worked with Sonoma County Community Action Partnership to open the GREEN CENTER.
- Developed a new inventory of training providers with a wide range of training opportunities in "green" occupations.
- Gained specific experience in matching unemployed construction workers with new training opportunities leading to employment in emerging "green" aspects of the construction industry.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	300	278
Completed Training	240	248
Attained Recognized Certificate/Degree	210	217
Placement in Unsubsidized Employment	220	124
Training Related Job Placement	187	72
Retained Employment (6 months)	178	26

## Category 2

### College of the Desert

This project established a first of its kind workforce training to support the employment needs of utility-scale solar energy projects planned for construction in the desert region of Southern California bringing economic benefits to nearby communities and to the state.

#### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	120	117
Completed Training	108	117
Attained Recognized Certificate/Degree	95	90
Placement in Unsubsidized Employment	103	39
Training Related Job Placement	Not Negotiated	34
Retained Employment (6 months)	94	10

### Hartnell College

This grantee exceeded enrollment and training goals, and recruited eight new industry faculty members to teach at the college. Project staff built a strong industry network of supporters and significantly enhanced the school's reputation in the community.

#### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	140	190
Completed Training	133	166
Attained Recognized Certificate/Degree	Not Negotiated	Not Reported
Placement in Unsubsidized Employment	116	96
Training Related Job Placement	Not Negotiated	6***
Retained Employment (6 months)	Not Negotiated	Not Reported

\*\*\* Data Source: Employment Development Department's Job Training Automation System

## Humboldt County

### Hoopla Regional Program:

- Received awards from the National Tribal Council
- Is currently being reviewed to be a permanent program
- Original youth participants are being interviewed to be program directors/leaders

### All programs resulted in significant changes in participants' lives including:

- Contributing to family income (in some cases keeping families fed and housed)
- Dropouts re-engaging with school
- Homeless youth continuing on with the CCC and gaining permanent housing and income
- Significant connections between youth and community mentors

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	100	86
Completed Training	80	72
Attained Recognized Certificate/Degree	70	72
Placement in Unsubsidized Employment	73	23
Training Related Job Placement	60	15
Retained Employment (6 months)	59	Not Reported

## Imperial Valley College

Project B-GREEN had a 95% completion rate and 29 of the 30 participants earned an Energy Efficiency Technology Certificate. In addition, Imperial Valley College created a curriculum and the Energy Efficiency Technology Certificate/Associate's Degree, which was approved by the California Community College Chancellor's Office in February 2010.

## Key Program Outcomes

	Goal	Actual
Placement in Education or Training	30	29
Completed Training	22	29
Attained Recognized Certificate/Degree	22	29
Placement in Unsubsidized Employment	21	17
Training Related Job Placement	21	14
Retained Employment (6 months)	21	13

### Kern/Inyo/Mono Consortium

The Green Building Pre-Apprenticeship program has allowed Employers' Training Resource (ETR) to build stronger ties to the trade unions than has been possible in the past. The Kern Community College District (KCCD) and ETR have had a long standing partnership in the provision of workforce training programs. Participants benefitted from KCCD's Energy Center, which offered training as utility, solar and wind technicians, and Building Performance Institute certification as well.

The development of the Pink and Green Pre-Apprenticeship Course was another great achievement. This course was designed to introduce women to nontraditional roles in construction.

## Key Program Outcomes

	Goal	Actual
Placement in Education or Training	120	107
Completed Training	96	103
Attained Recognized Certificate/Degree	96	103
Placement in Unsubsidized Employment	87	33*
Training Related Job Placement	Not Negotiated	19
Retained Employment (6 months)	71	22

\*58 are still enrolled and receiving WIA funded services at closeout

## Long Beach Community College District

The Pre-Apprenticeship Program offered career training offered in:

- Water and Energy Efficient Building and Retrofits
- Solar Electric Installation and Design
- Sustainable Landscape Design

To wrap up the project, LBCC developed a career exploration solution to educate people seeking training and education about 'green' jobs, especially related to construction, solar, energy efficiency and other sustainability-related careers and industries. Virtual Job Shadow is a highly engaging interactive career profile meant to capture a job seeker's attention. Each Virtual Job Shadow is made up of a "day in the life" video, questions and answers, and career profiles in the following occupations: BPI Contractor, HERS Rater, Solar PV Designer, LEED / BIM Green Consulting, Sustainable Landscape Designer, Retrofit/ weatherization Specialist, and Green Real Estate Consultant. The videos can be accessed through this link: <http://www.virtualjobshadow.com/lbccgreenjobs>

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	100	91
Completed Training	100	72
Attained Recognized Certificate/Degree	96	70
Placement in Unsubsidized Employment	88	35
Training Related Job Placement	Not Negotiated	10
Retained Employment (6 months)	71	Not Reported

## Los Angeles City

The Green Retrofit program is one component of a larger regional Green Workforce Development initiative in the greater Los Angeles region. As such, the City is committed to ensuring that the program continues through other funding in order to meet the needs of the job seeker participants and the employer community.

This sector-based collaboration united resources throughout the region including unions, trade associations, and the non-profit sectors involved in the workforce development system. Through these strong relationships with employers in the region, this program successfully exceeded program goals and allowed for timely implementation of all the training elements.

This grantee focused on developing an on-going and viable high growth, green sector training initiative by coordinating with the Los Angeles Community College District (LACCD) to develop the curriculum for this program.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	200	239
Completed Training	160	239
Attained Recognized Certificate/Degree	140	239
Placement in Unsubsidized Employment	160	239
Training Related Job Placement	144	183
Retained Employment (6 months)	133	183

### Los Angeles Trade Technical College

An innovative aspect of the program was the active effort LATTC put forth to recruit women into the energy and electrical distribution fields. With only 2% of this growing industry composed of women, this grantee was able to achieve a 34% female enrollment out of the total number of participants. As a result, 19 out of 34 enrolled women completed the first all-female lineman training program with a 74% employment rate (47% within the industry).

The goal of the electrical lineman training was to produce qualified candidates for various power line mechanic training programs to develop basic pre-apprentice skills needed to be successful.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	150	177
Completed Training	128	161
Attained Recognized Certificate/Degree	98	161
Placement in Unsubsidized Employment	98	104
Training Related Job Placement	85	79
Retained Employment (6 months)	70	65

## NoRTEC

This grantee was able to exceed three of the four program goals by over-enrolling participants into training. The coordinated efforts of the partnerships formed resulted in the achievement of most grant objectives.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	117	142
Completed Training	95	118
Attained Recognized Certificate/Degree	82	118
Placement in Unsubsidized Employment	86	69
Training Related Job Placement	70	43
Retained Employment (6 months)	71	Not Reported

## Peralta Community College District

This project supported the design and development of three new certificates of achievement at Laney College: Building Performance and Energy Efficiency; Energy Efficiency Sales and Auditing; and Solar Design, Sales and Installation. Students reported high levels of satisfaction with the programs in written and verbal feedback. While the job market is very competitive, and there simply are not enough jobs being created, this project's graduates have been very successful at securing and retaining positions in the Clean Energy sector when jobs do become available.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	120	133
Completed Training	100	89
Attained Recognized Certificate/Degree	100	89
Placement in Unsubsidized Employment	90	52
Training Related Job Placement	75	45
Retained Employment (6 months)	75	47



## Richmond City

RichmondBUILD introduced students to the world of green construction, solar installation technology and energy efficiency. A noteworthy achievement of this project includes the placement of a female into a union energy efficiency job; and as a result, she was able to save her home from foreclosure.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	255	224
Completed Training	255	196
Attained Recognized Certificate/Degree	110	182
Placement in Unsubsidized Employment	111	169
Training Related Job Placement	140	169
Retained Employment (6 months)	180	Not Reported

## Sacramento Employment Training Agency

In partnership with the Los Rios Community College District, this grantee developed a Green Careers Exploration workshop for over 1,000 job seekers in the Sacramento Works Career Center system.

The goal of this project was to meet the employers' need of providing and preparing additional skilled workers for performing energy audits, retrofitting homes and buildings, installing advanced HVAC systems, and managing energy resources for businesses and public agencies.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	230	232
Completed Training	230	220
Attained Recognized Certificate/Degree	161	165
Placement in Unsubsidized Employment	168	85
Training Related Job Placement	143	62
Retained Employment (6 months)	136	Not Reported

## San Bernardino Community College District

This program served a majority of dislocated HVAC workers, electricians or other building industry workers, a third of them traveled from the high desert to attend training. Support services played a significant factor to ensure program completion. Several of the participants received job prospects before the end of their training.

For sustainability, this grantee built a state of the industry home energy raters and building analyst lab that will continue to be utilized for training in green technology; working with other district courses in applied technology and trade skills training programs to integrate training with green technologies.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	180	184
Completed Training	144	159
Attained Recognized Certificate/Degree	101	159
Placement in Unsubsidized Employment	105	56
Training Related Job Placement	75	13
Retained Employment (6 months)	85	56

## San Diego Workforce Partnership

The greatest achievement of the San Diego Workforce Partnership's CEWTP grant was the amazing response received from the participants and instructors at all training sites. This subgrantee was able to create a partnership of community colleges who previously had not worked directly with one another. The common goal of providing a quality training program united all our partners in a strong collaboration capable of overcoming the many administrative challenges that come when community colleges and WIBs join forces.

## Key Program Outcomes

	Goal	Actual
Placement in Education or Training	160	162
Completed Training	128	137
Attained Recognized Certificate/Degree	112	116
Placement in Unsubsidized Employment	173	52
Training Related Job Placement	10	30
Job Retention (6 months)	95	Not reported

## San Francisco Office of Economic Workforce Development

The Green Jobs Training Initiative was implemented in collaboration with community-based organizations (CBOs) and the local community college. The primary training partner was City College of San Francisco, which developed, revised and reorganized its curriculum to meet the skill needs of employers and the training needs for participants. Over the course of the grant, City College created courses in energy efficiency, solar thermal installation, and added topics on solar installation, water and energy efficiency to the existing CityBuild Academy.

## Key Program Outcomes

	Goal	Actual
Placement in Education or Training	150	85
Completed Training	128	78
Attained Recognized Certificate/Degree	128	78
Placement in Unsubsidized Employment	115	10
Training Related Job Placement	110	10
Retained Employment (6 months)	98	0

## San Luis Obispo County

Of the 126 total enrolled in the program from January 2010 through 2011, 107 completed the program (85% success rate). A total of 26 participants have obtained employment upon exit from the program.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	133	126
Completed Training	126	107
Attained Recognized Certificate/Degree	93	48
Placement in Unsubsidized Employment	29	27
Training Related Job Placement	26	26
Retained Employment (6 months)	26	17

## Solano Community College

This project reached a large number of students with a broad and comprehensive understanding of Sustainability and Green Vocational Opportunities. Students received instruction on state and nationally recognized courses such as: Cal GREEN, NABCEP, BPI, LEED GA, and the project's foundational class titled "Introduction to Green Technology".

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	400	461
Completed Training	400	461
Attained Recognized Certificate/Degree	280	Not Reported
Placement in Unsubsidized Employment	290	73***
Training Related Job Placement	15	47***
Retained Employment (6 months)	235	Not Reported

\*\*\* Data Source: Employment Development Department's Job Training Automation System

## South Bay Workforce Investment Board

The majority of this project's students participated in a rigorous series of courses in basic construction, environmental literacy, weatherization, basic solar photovoltaic, solar thermal hot water systems, California building codes, Title 24 requirements and Building Performance Institute (BPI) standards; and sustainable development. The bulk of our trainees received at least one certificate of completion in one of these subjects and most received multiple certificates. Steadily, Gateways to Green Building participants have entered employment in the field for which they were trained.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	70	64
Completed Training	56	55
Attained Recognized Certificate/Degree	49	60
Placement in Unsubsidized Employment	51	14
Training Related Job Placement	51	6
Retained Employment (6 months)	41	3

## On-the Job Training

### Peralta Community College District

Two of OJT placements secured employment after the OJT period ended. Both are currently working with Future Power Corporation/Energy Conservation Options in Berkeley. They are working in energy efficiency and utilizing both the training received at Laney in phase 1 and during OJT with the employer. In addition to providing work and training, the employer had the valuable opportunity to work with graduates receiving direct professional development support as well as EDD-CEC partial reimbursement of the training period.

#### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	25	3
Completed Training	25	3
Placement in Unsubsidized Employment	15	2
Training Related Job Placement	15	2

### Richmond City

RichmondBUILD serves a marginalized community that can greatly benefit from workforce development programs that lead to real employment opportunities. The OJT opportunity has helped this grantee build a stronger community by providing critical services and opportunities to the individuals who need them most.

Through the Energy Commission's OJT program, the RichmondBUILD staff was able to match trained individuals with employers. Nineteen RichmondBUILD graduates were placed with various green employers like Advanced Home and Energy Conservation Options. RichmondBUILD graduates had the opportunity to work on blighted properties in their community and to join the Carpenter's and Laborer's Union.

The OJT program resulted in a valuable tool for a small business to use in a down economy as it provides the opportunity to continue to grow their business. A specific advantage of the OJT was that through the program, the students had a chance to take what they have learned in the classroom and apply it in a real world setting, while earning an income as the company gets an entry level employee who was properly trained and has a strong desire to learn.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	45	19
Completed Training	45	19
Placement in Unsubsidized Employment	45	19
Training Related Job Placement	33	19

### NoRTEC

Twenty six participants received high quality hands-on training in real work settings. All of the employers were very satisfied with the services they received through the project. All but one of the OJT participants were retained as full-time employees at the end of the training period. All other grant participants are currently job searching or have continued training via another WIA funding source.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	30	26*
Completed Training	30	10
Placement in Unsubsidized Employment	30	8
Training Related Job Placement	30	8

\* Of the twenty six participants, only ten have completed their WIA experience. The remaining sixteen have been transferred to another WIA funding source to continue training. Of the ten exits, eight entered employment (80% entered employment rate).

## Sacramento Employment Training Agency

Nineteen individuals were placed with green employers in OJT opportunities, and after completing the required hours, they have been retained in permanent employment with the employers. Additionally, SETA has developed solid relationships with green employers who will continue to partner for future hiring needs.

### Key Program Outcomes

	Goal	Actual
Placement in Education or Training	43	30
Completed Training	43	30
Placement in Unsubsidized Employment	33	18
Training Related Job Placement	33	18

### **Number of jobs created (Section 1512 Reports):**

As of the end of these projects, the number of jobs created is 52.82.

*\*\*NOTE: This section shall not include any proprietary data or other information not subject to public release. If you have confidential information to report, include a note in the above narrative advising the reader to contact the Project Manager for further information.\*\**



**(4) CONCLUSIONS: Provide a description of the following:**

- a. Major findings or conclusions**
- b. Best Practices**
- c. Lessons Learned**

- The economic downturn led to challenges in placing people into jobs and reduced the opportunities for advancement. Enrolled participants became discouraged in their job search.
- Legislation, incentives, and rebate programs that could have driven increased demand for green building construction work have been stalled or have ended.
- Great relationships between community colleges and local workforce investment boards were created as well as a model of integrated services that promote and mold the future success of our workforce.
- The accelerated training model format is a very valuable tool for career technical education and back end services that support these training disciplines: industry contacts and involvement, career development, integrated services, etc.
- Instructors for the CEWTP gained significant experience and knowledge in the sustainability area, attending conferences, classes, and networking with other industry professionals resulting in an ever improving regional network.
- Participants served, for the most part, had never considered higher education as an option for them. These individuals required extensive support to navigate the eligibility, assessment, enrollment, registration, and class participation required of a college student. In addition, there were many participants who benefitted from basic skill and work readiness instruction.
- Workforce development agencies can make the biggest impact by redesigning their businesses services model from a supply-centric model, which pushes newly trained workers out to the job market, to a Demand-Centric model that identifies employers; real-time hiring needs and effectively screens, matches and presents workers for those positions. Change the primary focus from serving the unemployed worker and to serving the businesses that actually hire the workers.
- Reporting and invoicing for two funding sources (for two different timeframes (monthly 1512 for CEC SEP and quarterly 1512 for EDD WIA 15%) have made it difficult to synchronize expenditures for some subgrantees.
- Davis Bacon Act technical assistance and guidance would have been very helpful in the beginning of the project; the Davis Bacon Toolkit was not available to subgrantees until December 2010.

- (5) **TECHNOLOGY:** Describe any products produced or technology transfer activities accomplished during this reporting period, including but not limited to:
- a. Public release of project information: publications, conference papers or other public release of results
  - b. Web site or other internet sites that show results of this project
  - c. Networks or collaborations fostered
  - d. Technologies and techniques developed
  - e. Inventions or patent applications created
  - f. Other products, such as data or databases, physical collections, audio or video, software or net ware, models, educational aids or curricula, instruments or equipment
- Sonoma County: Developed AB811 database to project clean energy workforce needs. \*
  - Grossmont-Cuyamaca Community College District: Developed East County Economic Development Council (ECEDC) Green Portal, Job Board Website, Green Career Center Website and On-Line Curriculum.

\*Funded with State Energy Program and Workforce Investment Act funds.

**(6) DELIVERABLES: Provide a list deliverables under the contract, including a brief description, due date and date of delivery.**

<b>(7) Deliverable</b>	<b>Brief Description</b>	<b>Due Date in Agreement</b>	<b>Date Delivered to CEC</b>
<b>TASK 1</b>			
Copies of Proposals	Copies of all proposals for review, scoring and selection by the Energy Commission, CWIB and EDD	9/14/2009	9/14/2009
Grant Applicant Information	Compilation of applicant information, scores and recommended subgrant awards	9/22/2009	9/22/2009
Award Notification letters and/or memos	Copies of award notification letters to grantees	10/1/2009	11/10/2009
Award Announcement	Press Release Announcing Grant Recipients	10/1/2009	9/30/2009
<b>TASK 2</b>			
Subgrant Awards	Copies of 28 subgrant agreements	12/31/2010	Ongoing
Training, educational and outreach materials	List of any training, educational and outreach materials developed using State Energy Funds	Ongoing	CEC collected information.
<b>TASK 3</b>			
Monthly Progress Reports	Summary of monthly reports for 28 subgrantees	3 days after the end of each month	3 days after the end of each month
Section 1512 Monthly Reports	Section 1512 reports electronically.	3 days after the end of each month	3 days after the end of each month
Draft Annual Report	Draft Annual Report	45 days after the end of the calendar year	3/3/2011
Final Annual Report	Final Annual Report	14 days after delivery of draft annual report	3/28/2011
Draft Final Report	Draft Final Report	March 16, 2012	March 16, 2012
Final Report	Final Report	March 30, 2012	April 13, 2012

<b>TASK 4</b>			
Quarterly Meeting Participants	List of quarterly meeting participants *NOTE: EDD and CEC conducted monthly webinars in lieu of quarterly meetings.	14 days after the beginning of each calendar quarter	N/A – Developed contact list for webinar/meeting attendees.
Schedule of Quarterly Meetings	Schedule of quarterly meeting participants *NOTE: EDD and CEC conducted monthly webinars in lieu of quarterly meetings and two in-person meetings.	14 days after the beginning of each calendar quarter	Monthly webinars except for two in-person meetings in 1/25/2011 and 4/2011
Exhibit B Supplemental Information	Interagency Agreement Exhibit B, Budget Detail and Payment Provisions Supplemental Information	As required	N/A
<b>TASK 5</b>			
Monitoring Reports	Copies of monitoring reports for the On-the-Job Training projects	2/29/2012	2/27/2012
Meeting	To review monitoring report findings and to initiate actions that maybe necessary based on these findings.	As required	3/15/2012 and 3/29/2012

*\*\*NOTE: If Date of Delivery to CEC is more than one month later than the original Due Date in Agreement, provide an explanation. \*\**

- (8) **BUDGET:** Provide your approved budget under the contract, including budget category or deliverable, a brief description, budget amount and actual expenditure.

Budget Category or Deliverable	Brief Description	Budgeted	Actual Expenditure
Subawards resulting from Solicitation	Twenty-eight entities were awarded for the Green Building and Clean Energy Re-Training Partnerships and Green Building and Clean Energy Pre-Apprenticeship Training Partnerships programs. Additionally, four entities received additional funds for the On-the-Job Training programs.	\$15,518,574.74	\$15,372,849.25
EDD Program Administrative Fee	Staff salaries and staff benefits in administering the Clean Energy Workforce Training Program – State Energy Program.	\$500,000.00	\$500,000.00
	<b><u>TOTAL</u></b>	<b><u>\$16,018,574.74</u></b>	<b><u>\$15,872,849.25</u></b>

*\*\*NOTE: If expenditure is off by 5% of the budgeted amount, please explain. \*\**

## Attachment A

**Chart A**

<b>Participant Outcomes</b>	<b>Category 1</b>	<b>Category 2</b>	<b>OJT</b>	<b>Totals</b>
Total Served	1939	2623	378	<b>4940</b>
Total Placement in Education or Training	1897	2849	78	<b>4824</b>
Total Completed Training	1631	2581	62	<b>4274</b>
Total Attained Recognized Attained Certificate/Degree	1773	1779	Not Applicable	<b>3552</b>
Total Entered Unsubsidized Employment	696	1193	47	<b>1936</b>

**Chart B**

<b>WIA Services</b>	<b>Category 1</b>	<b>Category 2</b>	<b>OJT</b>	<b>Totals</b>
Core	2998	2162	104	<b>5264</b>
Intensive	1581	2320	104	<b>4005</b>
Training	1641	2195	73	<b>3909</b>
Supportive	330	1084	3	<b>1417</b>

## Attachment A (cont'd)

**Chart C**

<b>Demographics</b>	<b>Category 1</b>	<b>Category 2</b>	<b>OJT</b>	<b>Totals</b>
Female	303	342	19	<b>664</b>
Male	1558	2104	59	<b>3271</b>
Age 14-18	7	70	2	<b>79</b>
Age 19-21	99	280	15	<b>394</b>
Age 22-29	253	572	20	<b>845</b>
Age 30-39	434	522	17	<b>973</b>
Age 40-44	267	276	9	<b>552</b>
Age 45-54	545	492	11	<b>1048</b>
Age 55-61	292	190	4	<b>486</b>
Age 62-64	49	24	0	<b>73</b>
Age 65 & Over	32	16	0	<b>48</b>
American Indian/Alaskan Native	51	80	2	<b>133</b>
Asian	109	170	3	<b>282</b>
Black/African American	258	617	10	<b>885</b>
Hawaiian Native/Other Pacific Islander	20	45	0	<b>65</b>
White	1074	885	53	<b>2012</b>
Hispanic/Latino	400	733	10	<b>1143</b>
Veteran	216	197	1	<b>414</b>
Temporary Assistance to Needy Families (TANF)	75	73	0	<b>148</b>
Disabled	73	73	1	<b>147</b>
Low Income	1013	1298	33	<b>2344</b>

## Attachment B - Certificates Issued to Participants

Advanced Lighting Certification
Air Sealing & Insulating Existing Homes
Association of Energy Engineers, Sustainable Development Technician
BAY FL Design
BAY FLC
Blueprint for Workplace Success
BPI Certification
BPI Building Analyst Certification
BPI Building Analyst and Envelope Shell
BPI Building Analyst Professional
BPI Energy Auditor/Analyst
BPI Multi-Family
Build It Green, Green Building Professional
Build It Green, Green Building Professional-Advanced
Building Information Modeling Analyst
Building Performance Institute Analyst (Mod 3)
CALGREEN
California Building Performance Contractors Association (CBPCA), Marketing & Sales
CBPCA, Solar Thermal
CBPCA, Solar Photovoltaic
CBPCA, Title 24
CBPCA, Home Performance Energy Star
Certified Green Building Professional
Combustion Safety & Depressurization Testing
CORE
CORE PLUS
Energy Efficiency Retrofit Technician
Energy Efficiency Technology Certificate
Energy Systems Technology Fundamentals
Excel - Basic for Energy Auditors
Financial Analysis of EE Project
First Aid and CPR
Green Building Codes (Mod 1)
Green Building Professional (Mod 2)
Green Building Pre-Apprenticeship Certificate of Completion
Green Building Sustainability Design-UC Davis
Green Energy & Environmental Awareness in the Hospitality Industry
Green Plumber
Green Point Rater - New Construction
Green Point Rater - Existing Homes or Advisor
Green Technology Pre-Apprenticeship
High Performance Enclosures for Buildings
Home Energy Auditor
Home Energy Rater I
Home Energy Rater II
Home Energy Rater II Whole House Rater Certification
Home Energy Rater



HPwES1
HPwES2
HPwES3
HVAC Energy Utilization
Infrastructure Pre-Apprenticeship
Landscape
LEED GA
LEED Green Associate Accreditation
Lighting Design
Lighting Design w/ Software Calcs
Master Certificate in Renewable Energy and Solar Thermal Training
NABCEP
Net Zero - Toward Net Zero - Insulation Consider
Net Zero Buildings
Net Zero Energy Design - New/Existing Homes in CA
OSHA/HazMat/HAZWOPER
OSHA 10 Hour Certificate
PG&E Advanced Framing for Energy Residential Efficiency
Power Pole Climbing Certificate
PowerTech Certificate
Pre-Apprenticeship Green Construction Certificate
Pre-Apprenticeship Training Curriculum
QWEL
Retrofit/Wx
Road to 2030 Deep Energy Reduction
Sales & Marketing
SBDC NX Level
Solar Installer
Solar Installer NABCEP Certification
Solar Energy Technician
Solar PV Certified
Solar PV Installer Certification
Solar Voltaic (Mod 3)
Solar Water Heating System
SSU Construction Management
SSU Green Building Professional
SSU Sustainable Development & Climate Change
Sustainable Landscape Design & Principles
Title 24
Utility Incentive
Weatherization (Basic Wx)
Weatherization (CASIF)
Weatherization (Blower Door)
Weatherization & Energy Efficiency
Weatherization Technician Certificate
Whole House Energy Rater
Wind Turbine

## Attachment C

### Organizational Structure – Clean Energy Workforce Training Partnership

